UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,687	12/31/2003	Francis Joseph Kronzer	NPI-51 (19673)	2173

22827 7590 03/02/2006

DORITY & MANNING, P.A.
POST OFFICE BOX 1449
GREENVILLE, SC 29602-1449

EXAMINER	
CHAN, SING P	
ART UNIT	**PAPER NUMBER**
1734	

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/749,687	KRONZER, FRANCIS JOSEPH	
	Examiner	Art Unit	
	Sing P. Chan	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 35-64 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 35-64 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 21 December 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 11/21/05&1/25/06.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 35-41, 43-45, 47, 50-53, 55-56, 58, 60, 61, and 63 are rejected under 35 U.S.C. 102(b) as being anticipated by Tada et al (U.S. 6,017,636).

Regarding claims 35, 50-53, 55, and 60, Tada et al discloses a method of transferring an image to a substrate. The method includes providing a transfer sheet A with a release sheet and a layer of urethane emulsion resin (Col 4, lines 41-62) with acrylic emulsion added (Col 5, lines 19-35) and a transfer sheet B with a release sheet, and upper layer, an intermediate layer, and lower layer (Col 5, lines 52-55), forming an image layer on the transfer sheet B (Col 7, lines 32-39), adhering the two transfer sheets together, peeling the release sheet from transfer sheet B, placing the layer exposed by peeling the release sheet onto the substrate, and transfer the laminate with heat and pressure to the substrate, and peeling the release sheet from transfer sheet A (Col 7, lines 10-25) with the image sheet between the transfer film of transfer sheet A and the substrate.

Regarding claims 36-41, Tada et al discloses the release sheet includes synthetic papers, plastic films, and papers (Col 4, lines 7-16), which papers are cellulosic material and is coated with an aqueous emulsion of acrylic-urethane resin on

the back side of the sheet to prevent folds or curling (Col 4, lines 21-31), which would have no tack at a transfer temperature of 177°C to allow the papers to function as release sheet.

Regarding claims 43-45, 56, and 61, Tada et al discloses the imaging receiver sheet is transferred by heat and pressure applied by either an iron or industrial high pressure press machine. (Col 7, lines 15-17 and Col 7, lines 40-48)

Regarding claims 47, 58, and 63, Tada et al discloses the resin for the urethane emulsion has a softening point or melt at a temperature of 120°C or higher. (Col 4, lines 58-61)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tada et al (U.S. 6,017,636) as applied to claim 40 above, and further in view of Kronzer (U.S. 4,863,781).

Tada et al as disclosed above is silent as to the transfer sheet includes a conformable layer overlaying the base layer and underlaying the release layer. However, providing a conformable layer overlaying the base layer and underlaying the release layer is well known and conventional as shown for example by Kronzer.

Kronzer discloses a melt transfer web. The web includes a conformable layer overlaying the base layer and underlaying the release layer (Col 5, lines 32-35)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a conformable layer overlaying the base layer and underlaying the release layer as disclosed by Kronzer in the method of Tada et al to allow the transfer film to contact uneven workpiece. (See Kronzer, Col 5, lines 28-31)

5. Claims 46, 57,and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tada et al (U.S. 6,017,636) as applied to claims 35, 55, and 60 above, and further in view of Saito et al (U.S. 6,043,194).

Tada et al discloses the transfer sheet A includes a layer of urethane emulsion resin (Col 4, line 58 to Col 5, line 7) and the transfer sheet B includes an upper layer of urethane resin (Col 6, lines 20-21) but is silent as to the protective overlay transfer film is formed of a different material than the imaged transfer film. However, providing a protective overlay transfer film formed of different material than urethane is well known and conventional as shown for example by Saito et al. Saito et al discloses a method of transferring a protective layer. The method includes providing a protective overlay film and transferring the film onto a print (Col 11, lines 22-26) with the film formed of aromatic polycarbonate (Col 5,lines 31-37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an overlay protective transfer film formed of aromatic polycarbonate as disclosed by Saito et al in the method of Tada et al, which is a different material than the transfer sheet B layers to provide light fastness to the print

and prevent fading of the dye constituting the image by light. (See Saito et al, Col 6, lines 61-66)

6. Claims 48, 49, 54, 59, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tada et al (U.S. 6,017,636) as applied to claims 35, 55, and 60 above, and further in view of Hare (U.S. 5,948,586).

Tada et al as disclosed above is silent as to the overlay film includes film forming binder of a powdered thermoplastic polymer and is an ink compatible layer. However, providing an overlay film with powdered thermoplastic polymer is well known and conventional as shown for example by Hare. Hare discloses a method of transferring an image to fabric. The method includes providing a transfer image receptor element with an image receptive film layer comprising a film-forming binder formed of powdered thermoplastic polymer, which melts in a range from 65°C to 180°C. (Col 12, lines 9-52)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a transfer image receptor element with an image receptive film layer comprising a film-forming binder formed of powdered thermoplastic polymer, which melts in a range from 65°C to 180°C as disclosed by Hare in the method of Tada et al to allow the transfer sheet to receive image from any printer such as color laser copier and/or printer and ink jet printers. (See Hare, Col 7, lines 16-27)

Response to Arguments

7. Applicant's arguments with respect to claims 35-64 have been considered but are moot in view of the new ground(s) of rejection to new reference Tada et al (U.S. 6,017,636).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sing P. Chan whose telephone number is 571-272-1225. The examiner can normally be reached on Monday-Thursday 7:30AM-11:00AM and 12:00PM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher A. Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chan Sing Po

SPC

CHRIS FIORILLA
SUPERVISORY PATENT EXAMINER
AU 1734